

PICT-1 (5A8): sc-517088

BACKGROUND

The tumor suppressor PTEN plays an essential role in regulating signaling pathways involved in cell growth and apoptosis and is inactivated in a wide variety of tumors. Protein interacting with PTEN carboxyl terminus 1 (PICT-1), also designated p60 or Glioma tumor suppressor candidate region gene 2 protein, binds to the C-terminus of PTEN and regulates its turnover. Five Ser/Thr residues within the C-terminal segment of PTEN, including Ser 380, are phosphorylated upon binding of PTEN to PICT-1 and may contribute to the stabilization of PTEN. PICT-1 is localized to the nucleus and/or nucleolus and is highly expressed in pancreas and heart, but can also be detected in liver, skeletal muscle, placenta and kidney. PICT-1 also interacts with herpes simplex virus 1 regulatory proteins ICP22 and ICP0. The tumor suppressor GLTSCR2 gene, which encodes PICT-1, is located in a 150-kb minimal common deletion region for human gliomas, especially oligodendrogliomas, and maps to human chromosome 19q13.33.

REFERENCES

1. Bruni, R., et al. 1999. A novel cellular protein, p60, interacting with both herpes simplex virus 1 regulatory proteins ICP22 and ICP0 is modified in a cell-type-specific manner and is recruited to the nucleus after infection. *J. Virol.* 73: 3810-3817.
2. Smith, J.S., et al. 2000. A transcript map of the chromosome 19q-arm glioma tumor suppressor region. *Genomics* 64: 44-50.
3. Okahara, F., et al. 2004. Regulation of PTEN phosphorylation and stability by a tumor suppressor candidate protein. *J. Biol. Chem.* 279: 45300-45303.

CHROMOSOMAL LOCATION

Genetic locus: GLTSCR2 (human) mapping to 19q13.33.

SOURCE

PICT-1 (5A8) is a mouse monoclonal antibody raised against amino acids 402-478 representing partial length PICT-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PICT-1 (5A8) is recommended for detection of PICT-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

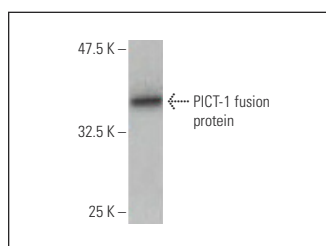
Suitable for use as control antibody for PICT-1 siRNA (h): sc-45698, PICT-1 shRNA Plasmid (h): sc-45698-SH and PICT-1 shRNA (h) Lentiviral Particles: sc-45698-V.

Molecular Weight of PICT-1: 54 kDa.

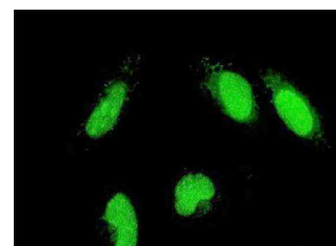
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PICT-1 (5A8): sc-517088. Western blot analysis of human recombinant PICT-1 fusion protein.



PICT-1 (5A8): sc-517088. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Cámara-Quílez, M., et al. 2020. The HMGB1-2 ovarian cancer interactome: the role of HMGB proteins and their interacting partners MIEN1 and NOP53 in ovary cancer and drug-response. *Cancers* 2: E2435.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.